UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,030	03/11/2004	Joseph J. Weinstein	BBNT-P02-250	4640

28120 7590 01/19/2007

FISH & NEAVE IP GROUP
ROPES & GRAY LLP
ONE INTERNATIONAL PLACE
BOSTON, MA 02110-2624

EXAMINER	
CONTEE, JOY KIMBERLY	
ART UNIT	**PAPER NUMBER**
2617	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/797,030	WEINSTEIN ET AL.	
	Examiner	Art Unit	
	Joy K. Contee	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *3/11/04, 9/7/04, 6/13/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-41 are rejected under 35 U.S.C. 102(e) as being anticipated by Shirakawa et al. (Shirakawa), US Pub. No. 2005/0030949.

Regarding claim 1, Shirakawa discloses a method of synchronizing routing data with another node in a network, comprising: receiving routing data; performing a function on at least a portion of the routing data to produce a first digest, where the first digest comprises substantially less data than the routing data; receiving a second digest from the other node; comparing the first and second digests to determine whether they are identical to produce first comparison results; and exchanging a portion of the routing data based on the first comparison results (page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 2, Shirakawa discloses the method of claim 1, wherein the function comprises at least one of a checksum or a hash(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 3,Shirakawa discloses the method of claim 1, wherein the other node performs the function on a corresponding at least a portion of the routing data stored at the other node to produce the second digest(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 4,Shirakawa discloses the method of claim 1, wherein the routing data comprises Open Shortest Path First (OSPF) route advertisements(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 5,Shirakawa discloses the method of claim 1, further comprising: receiving multiple third digests from the other node, where the multiple third digests identify multiple sub-portions of the routing data stored at the other node(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 6, Shirakawa discloses the method of claim 5, further comprising: performing the function on corresponding sub-portions of the routing data that is locally stored to produce multiple local digests(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 7,Shirakawa discloses the method of claim 6, further comprising: comparing the multiple local digests with the multiple third digests to produce second comparison results; and exchanging further portions of the routing data based on the second comparison results(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 8, Shirakawa discloses a first node in a network, comprising: a plurality of interfaces configured to: receive routing data, and receive a first digest from a second node in the network; and processing logic configured to: perform a function on at least a portion of the routing data to produce a second digest, where the second digest comprises substantially less data than the routing data, compare the first and second digests to determine whether they are identical to produce first comparison results, where the plurality of interfaces are further configured to exchange a portion of the routing data based on the first comparison results. (page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 9, Shirakawa discloses a computer-readable medium containing instructions for controlling a processor to perform a method of synchronizing routing data with another node in a network, the method comprising: receiving routing data; performing a function on at least a portion of the routing data to produce a first digest, where the first digest comprises substantially less data than the routing data and where the function comprises at least one of a checksum or a hash; receiving a second digest from the other node; comparing the first and second digests to determine whether they are identical to produce first comparison results; and exchanging one or more portions of the routing data based on the first comparison results(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 10, Shirakawa discloses a method for designating nodes as one of a master node or a slave node for synchronizing routing data in a network, comprising: subdividing routing data stored at a first node into multiple portions;

counting the number of multiple portions to produce a first count; receiving a first message from a second node at the first node, the first message comprising a second count associated with a number of subdivided portions of the second node's routing data; comparing the first count with the second count to produce first comparison results; designating the second node as a slave node based on the first comparison results; and sending a second message to the second node if the second node is designated as a slave node, where the second message comprises a digest associated with the routing data stored at the first node(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 11, Shirakawa discloses the method of claim 10, wherein the first message further comprises a digest associated with routing data stored at the second node. (page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 12, Shirakawa discloses the method of claim 10, further comprising: performing a function to produce the digest, where the digest produced by the function has substantially less data than the routing data stored at the first node(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 13, Shirakawa discloses the method of claim 12, wherein the function comprises at least one of a hash or a checksum(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 14, Shirakawa discloses the method of claim 10, further comprising: designating the first node as a master node based on the first comparison results(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 15, Shirakawa discloses the method of claim 12, further comprising: subdividing each of the multiple portions into multiple sub-portions; performing the function on each of the multiple sub-portions to produce multiple digests(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 16, Shirakawa discloses the method of claim 15, further comprising: sending a third message to the second node, where the third message comprises the multiple digests(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 17, Shirakawa discloses a first node in a network, comprising: a memory; an interface configured to: receive routing data, store the routing data in the memory, and receive a first message from a second node, the first message comprising a first count associated with a number of subdivided portions of the second node's routing data; processing logic configured to: subdivide routing data stored in the memory into multiple portions, count the number of multiple portions to produce a second count, compare the second count with the first count to produce first comparison results, designate the second node as a slave node based on the first comparison comparison results; wherein the interface is further configured to: send a second message to the second node if the second node is designated a slave node, wherein the second message comprises a digest associated with the routing data stored in the memory(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 18, Shirakawa discloses a method of using database digests to synchronize routing data between a first node and a second node in a network, comprising: storing first routing data at the first node; storing second routing data at the

second node; performing, at the first node, a function on a portion of the first routing data, where the function produces a database digest that has substantially less data than the portion of the first routing data; and sending the database digest to the second node to synchronize the first routing data with the second routing data(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 19, Shirakawa discloses the method of claim 18, wherein the function comprises at least one of a hash or a checksum(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 20, Shirakawa discloses the method of claim 18, further comprising: receiving a first acknowledgment message from the first node based on the database digest, where the acknowledgment message indicates whether the second routing data is synchronized with the first routing data(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 21, Shirakawa discloses the method of claim 20, further comprising: subdividing the portion of the first routing data into multiple subportions; and performing the function on each of the multiple sub-portions to produce multiple database digests(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 22, Shirakawa discloses the method of claim 21, further comprising: sending the multiple database digests to the second node to synchronize the first routing data with the second routing data(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 23, Shirakawa discloses the method of claim 22, further comprising: receiving a second acknowledgment message from the second node based on the multiple database digests, where the second acknowledgment message indicates whether the multiple sub-portions are synchronized with corresponding sub-portions of the second routing data(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 24, Shirakawa discloses a system for using database digests to synchronize routing data in a network, comprising: a first node configured to store first routing data; a second node configured to: store second routing data, perform a function on a portion of the second routing data, where the function produces a database digest that has substantially less data than the portion of the second routing data, and send the database digest to the first node to synchronize the second routing data with the first routing data(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 25, Shirakawa discloses a data structure encoded on a computer-readable medium, comprising: first data comprising routing data; second data comprising an identifier for a node in a network; third data identifying a portion of the routing data; and fourth data comprising a first digest of the portion of the routing data, where a function is used to produce the digest and where the digest comprises substantially less data than the portion of the routing data(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 26, Shirakawa discloses the data structure of claim 25, wherein the function comprises at least one of a hash or a checksum(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 27, Shirakawa discloses the data structure of claim 25, further comprising: fifth data identifying another portion of the routing data; and sixth data comprising a second digest of the other portion of the routing data, where the function is used to produce the second digest and where the second digest comprises substantially less data than the other portion of the routing data(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 28, Shirakawa discloses a system for using database digests to synchronize routing data between a first node and a second node in a network, comprising: means for storing first routing data at the first node; means for storing second routing data at the second node; means for performing, at the first node, a function on one or more portions of the first routing data, where the function produces a database digest that has substantially less data then a respective one of the one or more portions of the first routing data; and means sending the database digest to the second node to synchronize the first routing data with the second routing data(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 29, Shirakawa discloses a method of synchronizing data with another node in a network, comprising: performing a function on at least a portion of the data to produce a first digest, where the first digest comprises substantially less data than the at least a portion of the data; receiving a second digest from the other node; comparing the first and second digests to determine whether they are identical to produce first comparison results; and exchanging a portion of the data based on the first comparison results(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 30, Shirakawa discloses the method of claim 29, wherein the function comprises at least one of a checksum or a hash(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 31, Shirakawa discloses the method of claim 29, wherein the other node performs the function on a corresponding at least a portion of the data stored at the other node to produce the second digest(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 32, Shirakawa discloses the method of claim 29, wherein the data comprises Open Shortest Path First (OSPF) route advertisements(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 33, Shirakawa discloses the method of claim 29, further comprising: receiving multiple third digests from the other node, where the multiple third digests identify multiple sub-portions of the data stored at the other node(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 34, Shirakawa discloses the method of claim 33, further comprising: performing the function on corresponding sub-portions of the data that is locally stored to produce multiple local digests. (page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 35, Shirakawa discloses the method of claim 34, further comprising: comparing the multiple local digests with the multiple third digests to produce second comparison results; and exchanging further portions of the data based on the second comparison results(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 36, Shirakawa discloses a method of using database digests to synchronize data between a first node and a second node in a network, comprising: storing first data at the first node; storing second data at the second node; performing, at the first node, a function on a portion of the first data, where the function produces a database digest that has substantially less data than the portion of the first data; and sending the database digest to the second node to synchronize the first data with the second data(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 37, Shirakawa discloses the method of claim 36, wherein the function comprises at least one of a hash or a checksum. (page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 38, Shirakawa discloses the method of claim 36, further comprising: receiving a first acknowledgment message from the first node based on the database digest, where the acknowledgment message indicates whether the second data is synchronized with the first data(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 39, Shirakawa discloses the method of claim 38, further comprising: subdividing the portion of the first data into multiple subportions; and performing the function on each of the multiple sub-portions to produce multiple database digests(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 40, Shirakawa discloses the method of claim 39, further comprising: sending the multiple database digests to the second node to synchronize the first data with the second data(page 2 [0047-0066] and pages 4-6 [000-0124]).

Regarding claim 41, Shirakawa discloses the method of claim 40, further comprising: receiving a second acknowledgment message from the second node based on the multiple database digests, where the second acknowledgment message indicates whether the multiple sub-portions are synchronized with corresponding sub-portions of the second data. (page 2 [0047-0066] and pages 4-6 [000-0124]).

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joy K. Contee whose telephone number is 571.272.7906. The examiner can normally be reached on Monday through Friday, 5:30 a.m. to 2:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on 571.272.7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JC

JOY K. CONTEE
PATENT EXAMINER